

# SAFETY DATA SHEET

## STEAMATE NA0880

### 1. Identification

<b>Product identifier</b>	<b>STEAMATE NA0880</b>
<b>Other means of identification</b>	None.
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Recommended use</b>	Blend of neutralizing amines
<b>Restrictions on use</b>	Not available.

#### Company/undertaking identification

VEOLIA WATER TECHNOLOGIES & SOLUTIONS  
AUSTRALIA PTY LTD  
103 Raubers Road, Northgate, QLD 4013 Australia  
C/o Buddle Findlay, Level 18, Hsbc Tower, 188 Quay  
Street, Auckland, 1010, New Zealand  
Tel: 1800 064 140 (AUS) 0800 945635 (NZ)  
Email: vtc.vwts.apacproductregulatory.all@veolia.com

#### Emergency telephone

+61-290372994 (Aust) +64-98010034 (NZ)

### 2. Hazard(s) identification

#### Classification of the hazardous chemical

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1B
	Reproductive toxicity	Category 2
<b>Environmental hazards</b>	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3

#### Label elements, including precautionary statements

##### Hazard symbol(s)



##### Signal word

Danger

##### Hazard statement(s)

Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. Suspected of damaging fertility or the unborn child. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

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Precautionary statement(s)	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental information</b>	None.
<b>Other hazards which do not result in classification</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Ethanolamine	141-43-5	30- <60
Dimethylaminopropylamine (DMAPA)	109-55-7	10- <30

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Personal protection for first-aid responders</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
<b>Symptoms caused by exposure</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.

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<b>Special protective equipment and precautions for fire fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Hazchem code</b>	None.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**For emergency responders** Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

### 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls and personal protection

**Control parameters** Follow standard monitoring procedures.

#### Occupational exposure limits

##### Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Ethanolamine (CAS 141-43-5)	STEL	15 mg/m <sup>3</sup>
		6 ppm
	TWA	7.5 mg/m <sup>3</sup>
		3 ppm

##### US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

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### UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Ethanolamine (CAS 141-43-5)	STEL	7.6 mg/m3
		3 ppm
	TWA	2.5 mg/m3 1 ppm

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, for example personal protective equipment (PPE)</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield. Splash proof chemical goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

<b>Appearance</b>	Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless to yellow
<b>Odor</b>	Slight
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	12.7
<b>Melting point/freezing point</b>	< -34 °C
<b>Initial boiling point and boiling range</b>	104 °C
<b>Flash point</b>	> 100 °C P-M(CC)
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg / 2.4 kPa
<b>Vapor pressure temp.</b>	21 °C
<b>Vapor density</b>	> 1 (Air = 1)
<b>Relative density</b>	1
<b>Relative density temperature</b>	21 °C
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 %

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<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	14 cps
<b>Viscosity temperature</b>	21 °C

### Other physical and chemical parameters

<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>pH in aqueous solution</b>	11.7 (5% SOL.)
<b>Pour point</b>	< -34 °C
<b>VOC</b>	60 % (Estimated)

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids. Strong oxidizing agents. Peroxides. Phenols.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on possible routes of exposure

<b>Inhalation</b>	Harmful if inhaled.
<b>Skin contact</b>	Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.  Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.

**Symptoms related to exposure** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

**Acute toxicity** Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed.

Product	Species	Test Results
STEAMATE NA0880		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1300 mg/kg (Calculated according to GHS additivity formula)
<b>Inhalation</b>		
<i>Dust and mist.</i>		
LC50	Rat	3.22 mg/l, 4 Hour (Calculated according to GHS additivity formula)
<b>Oral</b>		
LD50	Rat	1400 mg/kg (Calculated according to GHS additivity formula)

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Components	Species	Test Results
Dimethylaminopropylamine (DMAPA) (CAS 109-55-7)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	> 4.3 mg/l, 4 Hour
<b>Oral</b>		
LD50	Rat	410 mg/kg
Ethanolamine (CAS 141-43-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1025 mg/kg
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	> 1.5 mg/l, 4 Hour
<b>Oral</b>		
LD50	Rat	1720 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Serious eye damage/irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure.	
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.	
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May be harmful if absorbed through skin. Prolonged exposure may cause chronic effects.	
	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.	

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Product	Species	Test Results	
<b>Aquatic</b>			
Crustacea	LC50	Daphnia magna	160 mg/L, 48 hour (Estimated)
	NOEL	Daphnia magna	49 mg/L, 48 hour (Estimated)
Fish	LC50	Fathead Minnow	440 mg/L, 96 hour (Estimated)
	NOEL	Fathead Minnow	260 mg/L, 96 hour (Estimated)

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

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- COD (mgO<sub>2</sub>/g) 768 (calculated data)
- BOD 5 (mgO<sub>2</sub>/g) 252 (calculated data)
- BOD 28 (mgO<sub>2</sub>/g) 252 (calculated data)

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- Closed Bottle Test (% Degradation in 28 days)	30 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	65 (calculated data)
- TOC (mg C/g)	266 (calculated data)

### Bioaccumulative potential

<b>Partition coefficient n-octanol / water (log Kow)</b>	
Ethanolamine	-1.31
<b>Bioconcentration factor (BCF)</b>	
Ethanolamine	3

**Mobility in soil** No data available for this product.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

### 13. Disposal considerations

**Disposal methods** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

**ADG**

<b>UN number</b>	2735
<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Ethanolamine, Dimethylaminopropylamine (DMAPA))
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No
<b>Hazchem code</b>	2X
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IATA**

<b>UN number</b>	2735
<b>UN proper shipping name</b>	Amines, liquid, corrosive, n.o.s. (Ethanolamine, Dimethylaminopropylamine (DMAPA))
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	153
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	2735
<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Ethanolamine, DIMETHYLAMINOPROPYLAMINE (DMAPA))
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II



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### Environmental hazards

**Marine pollutant**

No.

**EmS**

F-A, S-B

**Special precautions for user**

Read safety instructions, SDS and emergency procedures before handling.

RQ(Diethanolamine)

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not established.

ADG



IATA; IMDG



## 15. Regulatory information

### Safety, health and environmental regulations

#### National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

Group Standard - Water Treatment Chemicals (Corrosive) - HSR002681

#### Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix E

Ethanolamine (CAS 141-43-5)

#### Australia Medicines & Poisons Appendix F

Ethanolamine (CAS 141-43-5)

#### Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.



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### Australia Medicines & Poisons Schedule 10

Poisons schedule number not allocated.

### Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

### Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

### Australia Medicines & Poisons Schedule 4

Ethanolamine (CAS 141-43-5)

### Australia Medicines & Poisons Schedule 5

Ethanolamine (CAS 141-43-5)

### Australia Medicines & Poisons Schedule 6

Ethanolamine (CAS 141-43-5)

### Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

### Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.

### Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

### High Volume Industrial Chemicals (HVIC)

Ethanolamine (CAS 141-43-5)

1000 - 9999 TONNES See the regulation for additional information.

### Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)

Not listed.

### National Pollutant Inventory (NPI) substance reporting list

Not listed.

### Prohibited Carcinogenic Substances

Not regulated.

### Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

### Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

### Restricted Carcinogenic Substances

Not regulated.

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

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Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other information

**Issue date** 27-January-2021  
**Revision date** 11/02/2023  
**Key abbreviations or acronyms used** AICIS: Australian Inventory of Industrial Chemicals.

**References:** No data available

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** Regulatory information: National regulations  
Other information: Disclaimer  
HazReg Data: Europe - EU

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